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09/914,771	09/04/2001	Erik Jensen	JENSEN=7	4127

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EXAMINER

SMITH, DUANE

ART UNIT

PAPER NUMBER

1724

DATE MAILED: 03/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/914,771

Applicant(s)

JENSEN, ERIK

Examiner

Duane S. Smith

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.
2. The abstract of the disclosure is objected to because of the inclusion of legal phraseology "means". Correction is required. See MPEP § 608.01(b).
3. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or  
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

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4. Claim 6 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim can not depend from another multiple dependent claim, claim 4 in this instance. See MPEP § 608.01(n). Accordingly, the claim 6 not been further treated on the merits.

5. Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 "and/or" is indefinite, in that the metes and bounds of the claimed phrase are indeterminate.

Claims 2-13 are rejected as being dependent upon a rejected base claim.

6. Claim 1 recites the claimed elements in means plus function format invoking claim analysis under 35 USC 112 6<sup>th</sup> paragraph. Following the guidelines set forth in MPEP 2181 under In re Donaldson Co. 16 F.3d 1189, 29 USPQ2d 1845 (Fed. Cir. 1994), means plus function limitations are interpreted to correspond to the structure recited within the specification or equivalents thereof. In the instant case with regards to claim 1, "means for supplying liquid" is considered to correspond to either "reflux inlet" or "raw product inlet"; "means for discharging liquid" is considered to correspond to outlet for remanence; "liquid application means" is considered to correspond to a rotor having a tubular body having longitudinally extending liquid throwing devices defined by open U-shaped pockets welded to the outer surface of the tubular body; "means for supplying gas" is considered to correspond to "a vapour inlet"; "means for discharging

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gas" to "a vapour outlet"; and "means of a plurality of guide plates" is considered to correspond to a plurality of guide plates.

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claim 1, 10 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by German patent 1054421.

German patent 1054421 teaches an apparatus for rectification of a liquid or scrubbing of a gas including horizontal elongated processing chamber(10) divided by a plurality of guide plates(12,13) extending across a major part of the cross section of the processing chamber, means for supplying liquid(15,30), means for discharging liquid(18), means for supplying gas(11), means for discharging gas(14), liquid application means(16) extending along a major part of the chamber length for throwing water transversely to the longitudinal axis of the processing chamber. While the liquid application means of the German reference does not correspond to the specific liquid application means of the instant invention as per the 35 USC 112 6<sup>th</sup> paragraph analysis, supra; it is considered to be an obvious equivalent in that both the liquid application means of the German reference and the instant invention function to repeatedly throw liquid transversely to the longitudinal axis of the processing chamber. Thus, the liquid application means of the German reference anticipates the liquid application means of the instant invention.

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With regards to claim 10, the gas flow follows a transverse tortuous path, see gas flow path arrows of figure 1. With regards to claim 12, the German reference teaches a conveyor means (21).

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 2-5 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over German patent 1054421 taken together with Laycock et al(US Patent No. 232,994).

German patent 1054421 teaches the apparatus essentially as claimed except for disclose a removable end wall releasable fastened by bolts to flanges for allowing insertion of guide plates into a processing chamber wherein the guide plates are releasable fastened into various predetermined axial spaced positions as in instant claims 2-5 and 7. However, Laycock et al disclose a removable end wall(M) releasable fastened by bolts to flanges(K) for allowing insertion of guide plates(B) into a processing chamber wherein the guide plates are releasable fastened(E, E') into various predetermined axial spaced positions( page 2, col. 1 or col. 3 of the entire document, lines 28-32). It would have been obvious to one of ordinary skill in the art at the time of the invention to include a removable end wall and guide plates in the apparatus of the German patent in order to configure the interconnected section in order to obtain the desired efficiency as suggested by Laycock et al.(col. 3 lines 31-32).

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With regards to claim 8, German patent discloses a liquid receiving chamber(19).

11. Claim 6 rejected under 35 U.S.C. 103(a) as being unpatentable over German patent 1054421 taken together with WO91/01784

German patent 1054421 discloses the apparatus essentially as claimed except for the liquid application means to be a rotor having liquid collecting pockets in the direction of rotation. However, WO91/01784 does disclose such liquid application means(10). It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the liquid application means of WO91/01784 for the liquid application means of the German reference in that mere substitution of one known functional equivalent liquid application means for another being well within the scope of one of ordinary skill in the art and there has been no showing of unexpected or unobvious results of utilizing one known liquid application means over another.

12. Claims 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over German patent 1054421 taken together with Gale(US Patent No. 3,353,337)

German patent 1054421 disclose the apparatus essentially as claimed except for the conveyor means being a screw conveyor. However, Gale does disclose a screw conveyor(30,47). It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute a screw conveyor for the conveyor means of the German reference in order to remove accumulated solids by the same shaft that rotates the liquid application means as suggested by Gale(col. 3 lines 35-40) and thus save upon energy requirements.

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13. Claims 9 and 11 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

14. The following is an examiner's statement of reasons for allowance: None of the prior art of record teach nor suggest the claimed features of instant claims 9 and 11 in combination with the features of the independent claim and any intervening claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Koehler, Kirkham et al, Eckey, Buttfield, Noden, Holmes, Slocum, Mitchell, Chandler et al, Morava, Isbell, Bowden et al, Meisnner et al, Aoyama, and Penno disclose similar apparatus.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duane S. Smith whose telephone number is 703-308-3792. The examiner can normally be reached on 8:30-6:00 M-TH.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Simmons can be reached on 703-308-1972. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7718 for regular communications and 703-305-3599 for After Final communications.



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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

Duane S. Smith  
Primary Examiner  
Art Unit 1724

*D. Smith*  
*3-10-03*

dss  
March 10, 2003